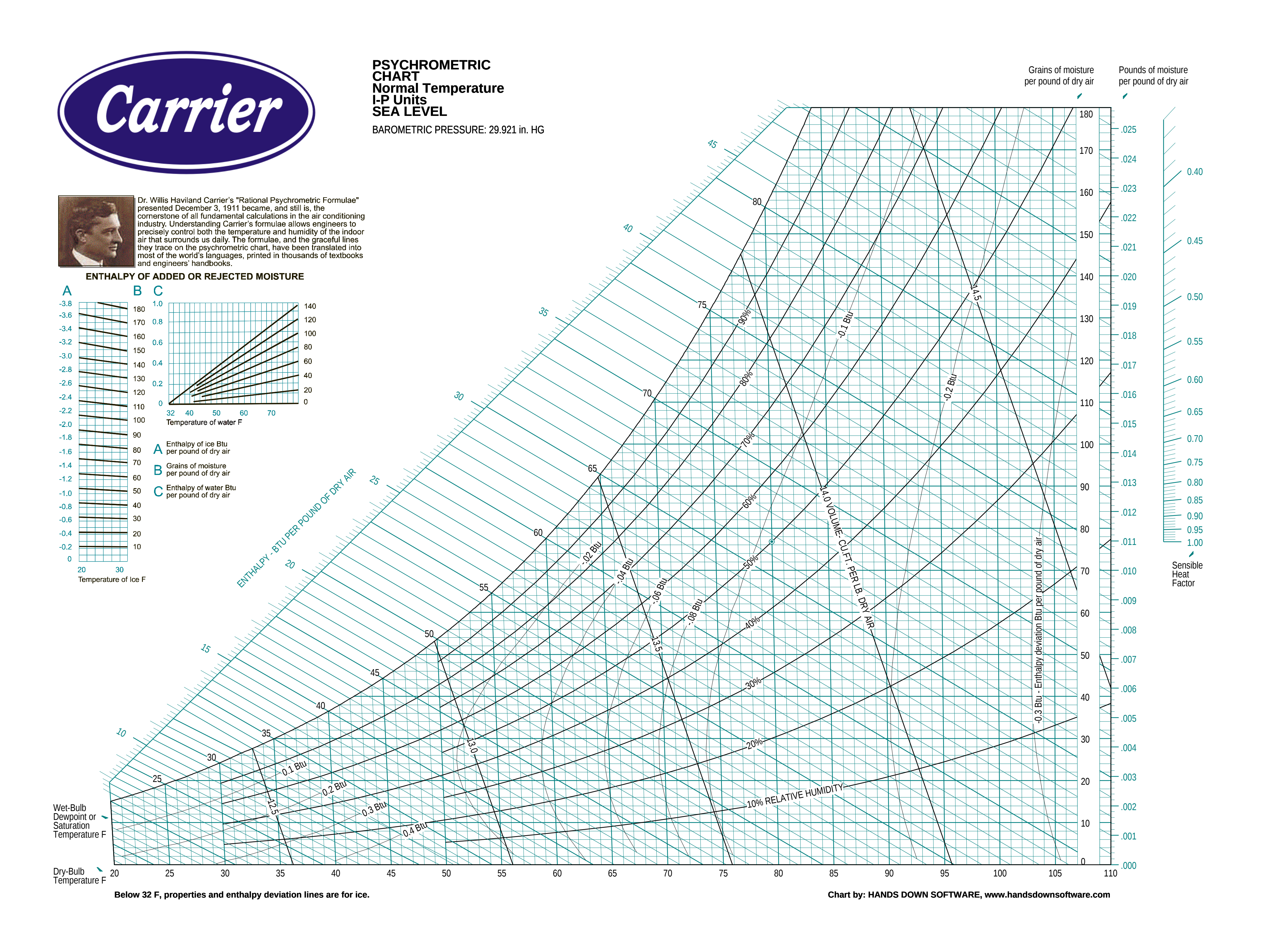


Carrier
PSYCHROMETRIC CHART
Normal Temperature
I-P Units
SEA LEVEL
BAROMETRIC PRESSURE: 29.921 in. HG
Dr. Willis Haviland Carrier's "Rational Psychrometric Formulae" presented December 3, 1911 became, and still is, the cornerstone of all fundamental calculations in the air conditioning industry. Understanding Carrier's formulae allows engineers to precisely control both the temperature and humidity of the indoor air that surrounds us daily. The formulae, and the graceful lines they trace on the psychrometric chart, have been translated into most of the world's languages, printed in thousands of textbooks and engineers' handbooks.
ENTHALPY OF ADDED OR REJECTED MOISTURE
A Enthalpy of ice Btu per pound of dry air
B Grains of moisture per pound of dry air
C Enthalpy of water Btu per pound of dry air
Temperature of Ice F
Temperature of water F
Grains of moisture per pound of dry air
Pounds of moisture per pound of dry air
Sensible Heat Factor
ENTHALPY - BTU PER POUND OF DRY AIR
14.0 VOLUME- CU.FT. PER LB. DRY AIR
10% RELATIVE HUMIDITY
-0.3 Btu - Enthalpy deviation Btu per pound of dry air
Wet-Bulb Dewpoint or Saturation Temperature F
Dry-Bulb Temperature F
Below 32 F, properties and enthalpy deviation lines are for ice.
Chart by: HANDS DOWN SOFTWARE, www.handsdownsoftware.com



PSYCHROMETRIC CHART
Normal Temperature
SI Units
SEA LEVEL

BAROMETRIC PRESSURE: 101.325 kPa

Dr. Willis Haviland Carrier's "Rational Psychrometric Formulae" presented December 3, 1911 became, and still is, the cornerstone of all fundamental calculations in the air conditioning industry. Understanding Carrier's formulae allows engineers to precisely control both the temperature and humidity of the indoor air that surrounds us daily. The formulae, and the graceful lines they trace on the psychrometric chart, have been translated into most of the world's languages, printed in thousands of textbooks and engineers' handbooks.

ENTHALPY - KJ PER KILOGRAM OF DRY AIR
0 10 20 30 40 50 60 70 80 90

-5 0 5 10 15 20 25

90% 80% 70% 60% 50% 40% 30% 20% 10% RELATIVE HUMIDITY

0.76 0.78 0.80 0.82 0.84 0.86 VOLUME - CUBIC METER PER KG DRY AIR 0.88 0.90

-10 -5 0 5 10 15 20 25 30 35 40

HUMIDITY RATIO (or Specific Humidity) GRAMS OF MOISTURE PER KILOGRAM OF DRY AIR
0 2 4 6 8 10 12 14 16 18 20 22 24

HUMIDITY RATIO - KILOGRAMS MOISTURE PER KILOGRAM DRY AIR
.000 .002 .004 .006 .008 .010 .012 .014 .016 .018 .020 .022 .024

Sensible Heat Factor
0.35 0.40 0.45 0.50 0.55 0.60 0.65 0.70 0.75 0.80 0.85 0.90 0.95 1.00

Below 32 F, properties and enthalpy deviation lines are for ice.

Chart by: HANDS DOWN SOFTWARE, www.handsdownsoftware.com